

In re of Appln. No. 09/765,644
Amendment dated August 4, 2004
Reply to Office action of March 4, 2004

Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-42 (Canceled).

43 (Currently Amended). A method for reducing secondary neuronal degeneration that follows neuronal damage caused by the neurodegenerative effects of an injury, disease, disorder or condition ~~or for reducing secondary neuronal degeneration that follows the primary neuronal damage of an injury,~~ in the central or peripheral nervous system of an individual in need thereof, other than multiple sclerosis, comprising:

causing T cells activated by Copolymer 1 or a Copolymer 1-related peptide or polypeptide that is a random copolymer that cross-reacts functionally with myelin basic protein (MBP) and is capable of competing with MBP on the MHC class II molecule in antigen presentation, to accumulate at the site of neuronal degeneration in the individual in need, thereby reducing neuronal degeneration at that site,

wherein said causing step comprises -

administering an effective amount of said Copolymer 1 or said Copolymer 1-related peptide or polypeptide in such a manner as to cause a T cell response thereto, such that T

cells become activated by said Copolymer 1 or Copolymer 1-
related peptide or polypeptide; or
administering an effective amount of activated T
cells that have been activated by said Copolymer 1 or said
Copolymer 1-related peptide or polypeptide.

44 (Currently Amended). A method in accordance with
claim 43, wherein said Copolymer 1 or a-Copolymer 1-related
peptide or polypeptide is Copolymer 1.

45-46 (Canceled).

47 (Previously Presented). A method in accordance
with claim 46, wherein said random copolymer comprises one
amino acid residue selected from each of at least three of the
following groups:

- (a) lysine and arginine;
- (b) glutamic acid and aspartic acid;
- (c) alanine and glycine; and
- (d) tyrosine and tryptophan.

48 (Previously Presented). A method in accordance
with claim 47, wherein said random copolymer consists of four
different amino acid residues, each from a different one of
the groups (a) to (d).

49 (Previously Presented). A method in accordance
with claim 48, wherein said four different amino acid residues
are alanine, glutamic acid, lysine and tyrosine.

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50 (Previously Presented). A method in accordance with claim 49, wherein said random copolymer consists of three different amino acid residues, each from a different one of three groups (a) to (d).

51 (Previously Presented). A method in accordance with claim 50, wherein said three different amino acid residues are tyrosine, alanine, and lysine.

52 (Previously Presented). A method in accordance with claim 50, wherein said three different amino acid residues are tyrosine, glutamic acid and lysine.

53 (Previously Presented). A method in accordance with claim 50, wherein said three different amino acid residues are lysine, glutamic acid, and alanine.

54 (Previously Presented). A method in accordance with claim 50, wherein said three different amino acid residues are tyrosine, glutamic acid, and alanine.

55 (Previously Presented). A method in accordance with claim 43, wherein the individual in need thereof is being treated post-operatively after tumor removal from or surgery on the CNS to protect CNS cells from glutamate toxicity.

56 (Canceled).

57 (Currently Amended). A method in accordance with claim 43, wherein the individual in need is one suffering from

a disease, disorder or condition that has neurodegenerative effects.

58-59 (Canceled).

60 (Currently Amended). A method in accordance with claim 43, wherein said individual in need is suffering from an injury, ~~or~~ disease, disorder or condition associated with abnormally elevated intraocular pressure.

61 (Currently Amended). A method in accordance with claim 43, wherein said individual in need is one suffering from an injury, ~~or~~ disease, disorder or condition that is other than an autoimmune disease.

62 (Currently Amended). A method in accordance with claim 43, wherein said activated T cells are caused to accumulate at the site of secondary neuronal degeneration by administering an effective amount of said Copolymer 1 or a said Copolymer 1-related peptide or polypeptide in such a manner as to cause a T cell response thereto, such that T cells become activated by ~~the~~ said Copolymer 1 or said Copolymer 1-related peptide or polypeptide.

63 (Currently Amended). A method in accordance with claim 62, wherein said Copolymer 1 or ~~a~~ Copolymer 1-related peptide or polypeptide is Copolymer 1.

64 (Currently Amended). A method in accordance with claim 62, wherein said Copolymer 1 or ~~a~~ Copolymer 1-related

peptide or polypeptide is a said Copolymer 1-related peptide or polypeptide.

65 (Currently Amended). A method in accordance with claim 62, in which said Copolymer 1 or a-Copolymer 1-related peptide or polypeptide is administered in a manner which promotes active immunization of the individual so as to build up a critical T cell response.

66 (Canceled).

67 (Currently Amended). A method in accordance with claim ~~66~~62, wherein said random copolymer comprises one amino acid residue selected from each of at least three of the following groups:

- (a) lysine and arginine;
- (b) glutamic acid and aspartic acid;
- (c) alanine and glycine; and
- (d) tyrosine and tryptophan.

68 (Previously Presented). A method in accordance with claim 67, wherein said random copolymer consists of four different amino acid residues, each from a different one of the groups (a) to (d).

69 (Previously Presented). A method in accordance with claim 68, wherein said four different amino acid residues are alanine, glutamic acid, lysine and tyrosine.

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70 (Previously Presented). A method in accordance with claim 69, wherein said random copolymer consists of three different amino acid residues, each from a different one of three groups (a) to (d).

71 (Previously Presented). A method in accordance with claim 70, wherein said three different amino acid residues are tyrosine, alanine, and lysine.

72 (Previously Presented). A method in accordance with claim 70, wherein said three different amino acid residues are tyrosine, glutamic acid and lysine.

73 (Previously Presented). A method in accordance with claim 70, wherein said three different amino acid residues are lysine, glutamic acid, and alanine.

74 (Previously Presented). A method in accordance with claim 70, wherein said three different amino acid residues are tyrosine, glutamic acid, and alanine.

75 (Currently Amended). A method in accordance with claim 43, wherein said activated T cells are caused to accumulate at the site of secondary neuronal degeneration by administering an effective amount of activated T cells that have been activated by said Copolymer 1 or ~~a~~-said Copolymer 1-related peptide or polypeptide.

76 (Previously Presented). A method in accordance with claim 75, wherein said activated T cells are autologous T

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cells, or allogeneic T cells from related donors, or HLA-matched or partially matched, semi-allogeneic or fully allogeneic donors.

77 (Previously Presented). A method in accordance with claim 76, wherein said T cells are autologous T cells which have been stored or are derived from autologous CNS cells.

78 (Previously Presented). A method in accordance with claim 76, wherein said T cells are semi-allogeneic T cells.

79 (Currently Amended). A method for ameliorating the secondary neurodegenerative effects of an injury, ~~or~~ disease, disorder or condition that involves neuronal degeneration of the central or peripheral nervous system of an individual in need thereof, other than multiple sclerosis, comprising:

causing T cells activated by Copolymer 1 or a Copolymer 1-related peptide or polypeptide that is a random copolymer that cross-reacts functionally with myelin basic protein (MBP) and is capable of competing with MBP on the MHC class II molecule in antigen presentation, to accumulate at the site of secondary neuronal degeneration in the individual in need, thereby reducing secondary neuronal degeneration at that site.

wherein said causing step comprises -
administering an effective amount of said Copolymer
1 or said Copolymer 1-related peptide or polypeptide in such a
manner as to cause a T cell response thereto, such that T
cells become activated by said Copolymer 1 or Copolymer 1-
related peptide or polypeptide; or

administering an effective amount of activated T
cells that have been activated by said Copolymer 1 or said
Copolymer 1-related peptide or polypeptide.

80 (Previously Presented). A method in accordance with claim 79, wherein the individual in need thereof is being treated post-operatively after tumor removal from or surgery on the CNS, whereby the secondary neuronal degeneration caused by glutamate toxicity, following the primary neuronal damage of the surgery, is reduced.

81 (Currently Amended). A method in accordance with claim 79, wherein said injury, disease, disorder or condition ~~individual in need is~~ one whose ~~neuronal degeneration or~~ secondary neurodegenerative effects are ~~neuronal degeneration~~ ~~is~~ caused or exacerbated by glutamate toxicity.

82 (Previously Presented). A method in accordance with claim 79, wherein the individual in need is one suffering from an injury that has caused primary neuronal damage.

83 (Canceled).

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84 (Currently Amended). A method in accordance with claim 79, wherein the individual in need is one suffering from a disease, disorder or condition that has neurodegenerative effects.

85-86 (Canceled).

87 (Currently Amended). A method in accordance with claim 79, wherein said individual in need is one suffering from an injury, ~~or~~ disease, disorder or condition associated with abnormally elevated intraocular pressure.

88 (Currently Amended). A method in accordance with claim 79, wherein said activated T cells are caused to accumulate at the site of secondary neuronal degeneration by administering an effective amount of said Copolymer 1 or a said Copolymer 1-related peptide or polypeptide in such a manner as to cause a T cell response thereto, such that T cells become activated by ~~the~~ said Copolymer 1 or said Copolymer 1-related peptide or polypeptide.

89 (Previously Presented). A method in accordance with claim 88, in which said Copolymer 1 or Copolymer 1-related peptide or polypeptide is administered in a manner which promotes active immunization of the individual so as to build up a critical T cell response.

90 (Currently Amended). A method in accordance with claim 79, wherein said activated T cells are caused to

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accumulate at the site of secondary neuronal degeneration by administering an effective amount of activated T cells that have been activated by said Copolymer 1 or ~~a~~ said Copolymer 1-related peptide or polypeptide.

91 (Previously Presented). A method in accordance with claim 90, wherein said activated T cells specific to Copolymer 1 or Copolymer 1-related peptide or polypeptide are autologous T cells, or allogeneic T cells from related donors, or HLA-matched or partially matched, semi-allogeneic or fully allogeneic donors.

92 (Previously Presented). A method in accordance with claim 91, wherein said T cells are autologous T cells which have been stored or are derived from autologous CNS cells.

93 (Previously Presented). A method in accordance with claim 91, wherein said T cells are semi-allogeneic T cells.

94 (New). A method in accordance with claim 43, wherein said secondary neuronal degeneration is caused or exacerbated by glutamate toxicity.